

Chronic calcified subdural haematoma found after presentation of symptomatic glioma

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DESCRIPTION

A patient with neurofibromatosis 1 and childhood ventriculoperitoneal (VP) shunt insertion for hydrocephalus presented with 4 weeks of short-term and working memory impairment. Apart from right-hand tremor, he denied headache, visual changes, weakness and dyscoordination. A CT head showed a right-sided subdural lesion with 22 mm midline shift. The MRI head showed a right inferior-frontal enhancing mass suspicious of high-grade glioma and right extensively calcified subdural extra-axial collection, with mixed heterogeneous predominantly T1-hyperintense contents (figure 1A).

He underwent right fronto-temporo-parietal craniotomy with chronic calcified subdural haematoma evacuation, right frontal mass resection plus duraplasty (figure 2). A postoperative MRI showed more than 90% debulking of the enhancing tumour (glioblastoma, WHO grade IV) and successful subdural evacuation (figure 1B). He received concurrent chemoradiotherapy and was well 4 months after surgery. Unfortunately, he developed recurrent seizures 11 months after his operation and follow-up MRI showed increased enhancement suggesting tumour regrowth. Repeat MRI following further tumour debulking showed rapid glioblastoma progression and he was not for further surgical intervention. He passed away 12 months after his initial diagnosis.

The glioma is likely responsible for his initial symptoms, but the coincidental calcified chronic subdural haematoma was striking. Non-traumatic subdural haematomas are recognised complications of VP shunt overdrainage, but calcification occurs in only 0.3%–2.7% of cases.^{1,2} If it were not for

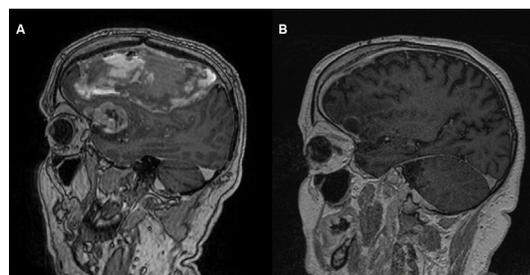


Figure 1 (A) Preoperative MRI shows a right inferior frontal mass suspicious of high-grade glioma and the extra-axial collection with mixed heterogeneous predominantly T1-hyperintense contents, and extensive calcification. (B) Postoperative MRI showing more than 90% debulking of the enhancing tumour (glioblastoma, WHO grade IV) and the right subdural evacuation.

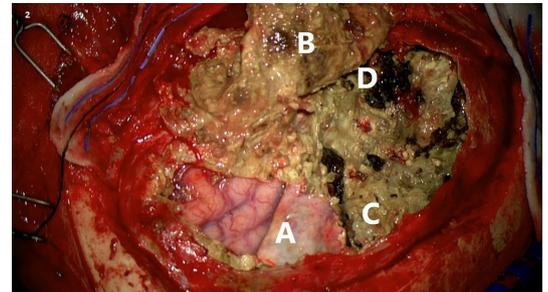


Figure 2 Intraoperative image taken after the right fronto-temporo-parietal craniotomy, dural opening and partial evacuation of the chronic highly calcified multilayer subdural haematoma. It shows (A) the right inferior frontal lobe before tumour resection, (B) external subdural membrane, (C) internal subdural membrane and (D) the remaining chronic calcified subdural collection.

the symptoms caused by the glioma, the extensively calcified haematoma may not have been discovered 40 years after the insertion of his VP shunt.

Learning points

- ▶ Overdrainage of ventriculo-peritoneal shunts may cause non-traumatic subdural haematomas.
- ▶ Chronic subdural haematomas may be asymptomatic for many years.

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REFERENCES

- 1 Merkle AE, Ch'ang J, Parker WE, *et al*. The rate of complications after ventriculoperitoneal shunt surgery. *World Neurosurg* 2017;98:654–8.
- 2 Pappamikail L, Rato R, Novais G, *et al*. Chronic calcified subdural hematoma: case report and review of the literature. *Surg Neurol Int* 2013;4:21.



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